# Mohave ground squirrel conservation strategy update

#### Margaret Mantor California Dept. of Fish and Wildlife



Mohave Ground Squirrel in Kern County, Courtesy of Dr. Phil Leitner

## History

- Draft 1 started in 2006 by Dept. of Fish and Game
- Draft reinitiated in 2010 by Desert Managers Group (DMG)
  - TAG recommended conservation priorities
- Draft reinitiated in 2012 by Dept. of Fish and Game and Russell Scofield, DMG
  - Working team convened at the MGS workshop in Barstow
- Draft 2 distributed for internal CDFW review in 2013

#### **Current Status**

- CDFW Internal review complete
- Requested release to TAG for technical review

### Projected\* schedule

- Technical and interagency review of draft 3, winter 2015?
  - Individuals who signed up at the MGS workshop to review, and other interested TAG members
  - DMG review
- Public review summer 2015
  - Including NGOs and other interested parties
- Completion of final document targeted for early 2016

\*subject to change

### **Conservation Strategy Goals**

1) Assess the most current understanding of the state of MGS

2) Formulate achievable objectives that will ensure the continued existence of the species

3) Provide conservation measures that may realistically be implemented in order to achieve the objectives, including measures that anticipate future impacts resulting from climate change

### Relationship to the DRECP

- DRECP will conserve/manage natural biodiversity within the plan area while allowing commercial-scale renewable energy development
- Network of lands set aside for conservation
- Renewable energy development projects restricted to designated areas, permit streamlining and "no-surprise" assurances

#### Relationship to the DRECP

- Currently, CESA, CEQA, NEPA, LSA, and other environmental statutes require impacts to MGS are mitigated and minimized, and will not result in jeopardizing the continued existence of the species
- DRECP would be governed by statutes under NCCP Act, likely greater amount of habitat protection

#### Format of the Conservation Strategy

#### Conservation Assessment

- Introduction
- Species description
- Life history
- Threats analysis
- Current state of management
- Conservation Strategy
  - Introduction
  - Goals, objectives, and measures
- Summary of Management Recommendations
- Appendices
  - Maps
  - Survey guidelines
  - Implementation budget and schedule

### **Conservation Strategy**

- 1) Habitat Protection
- 2) Conservation Mechanisms/Habitat Management
- 3) Research Needs
- 4) Climate Change Impacts
- 5) Monitoring/Adaptive Management

#### 1) Habitat protection



California Department of Fish and Wildlife Renewable Energy. D.Mastalir. 20131017. Data Sources: CDFW Service Layer Credits: Copyright:© 2013 National Geographic Society, i-cubed

0 5 10 20 Miles

Mohave Ground Squirrel Important Areas

# 2) Conservation mechanisms/habitat management

Identify effective conservation at local, State, and Federal levels

- Develop standard methods that will help conserve MGS (survey protocols, avoidance/minimization best practices, mitigation standards, etc.)
- Landscape Level Conservation Planning (DRECP)
- Restoration/enhancement
- Outreach and education programs

#### 3) Research Needs



California Department of Fish and Wildlife Renewable Energy. D.Mastalir. 20130604. Data Sources: CNDDB(Accessed June 2013), Dudek, Phil Leitner, USGS (Access through Databasin June 2013)



Mohave Ground Squirrel Data Gaps/Research Areas USGS Model, and Species Occurrences

#### 4) Climate change impacts

Identify and reduce potential threats resulting from climate change

- Reduce existing stressors and threats
- Establish multiple scenario projections of climate change effects and potential responses
- Establish conservation targets for future refugia

# 5) Monitoring and adaptive management

- Assess effectiveness of conservation mechanisms and adjust accordingly
- Assess research results to adjust conservation priorities and mechanisms
- Assess climate change impacts

#### Next Steps:

- Review DRECP
  - Compare CS habitat protection recommendations with DRECP
  - Natural communities and covered species avoidance and minimization
- DRECP comment period ends February 23, 2015

### Thank you...

#### Those who have helped so far with:

 Review, revision, comments, section writing, answering questions, providing staff support and source material, maps and models, expert opinion, meetings, literature searches, contract administration



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